

## Abstract 681

**TITLE:** Co-infection With Mycobacterium Tuberculosis and HIV Among Inmates In Correctional Facilities: A Retrospective Cohort Analysis

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**BACKGROUND/OBJECTIVE:** Inmates are at increased risk of both human immunodeficiency virus (HIV) and Mycobacterium tuberculosis infections and most importantly confection with both diseases. We aimed at assessing the extent to which co-infection with HIV and Mycobacterium tuberculosis (Mtb) was diagnosed in California correctional facilities.

**METHODS:** We performed a retrospective review of the California Department of Corrections (CDOC) TB cases reported from June 1992 to March 1999 to the CDOC. Information on sociodemographic variables, HIV status, chest X-ray, sputum acid-fast smears (or AFB) and culture for Mtb was extracted from the TB database and the Offender Based Information System (OBIS) maintained at the CDOC.

**RESULTS:** Of the 434 confirmed TB cases, 159 (36.6%) were identified as HIV-TB co infected, 126 (29.0%) were HIV negative and 149 (34.3%) had unknown HIV status. 90.9% of inmates were male. Most were members of minority groups (38.5% African Americans, 36.6% Latinos, 21.2% White and 3.7% Other). African Americans were 4 times more likely to be co-infected when compared to Latinos [OR=4.08, (95%CI, 1.34-12.7)] and, twice as likely to be infected than their counterpart Whites [OR=2.3, (95%CI, 1.3-8.04)]. Of tests performed, only chest X-rays seemed to be effective in identifying atypical patterns in dually infected inmates [OR=0.29, (95%CI, 0.15-0.26, p<0. 01)]. AFB smear and culture for Mtb had both a marginal significance in confirming presence of Mtb in dually infected inmates.

**CONCLUSIONS:** These findings underscore the need for continued efforts in the surveillance of the inmate population for tuberculosis and the need for heightened awareness of the possibility of coinfection with HIV. Because from and return to high risk groups in our communities the testing of newly arriving inmates for infectious TB and the ongoing control of Mtb in our institutions plays an important role in the public health of those communities. As corroborated by recent findings, standard tests such as the AFB are not always sensitive enough to detect inmates with infectious tuberculosis. A high index of suspicion is recommended for the early detection of dually infected inmates.

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